NOTE IV.

NOTES ON TROCHIDAE

BY

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(Plate 8).

1. A new *Trochus*.

Trochus (*Lamprostoma*) *filiferus*, n. sp.

Shell conic, solid, falsely umbilicate, embryonic whorls wanting, of the 8 remaining whorls the four upper ones are nearly strictly conic, the fifth is slightly, the sixth to eighth strongly constricted at the upper, convex towards the lower part, the last carinated at the periphery, with a flat base, which is however slightly convex towards the aperture; the colour of the shell is white, often with a rosy tinge, with irregular rather broad flames of dark rose on the upper part, where the flames are now broader now narrower than the interstices; on the base the flames are less dark and generally narrower, especially towards the umbilicus; the sculpture of the upper whorls consists of five beaded lirae of which the upper and lower ones are the strongest, with the beads less round; a very small intermediate one runs below the uppermost of the lirae. On the latter whorls these beaded lirae become indistinct and disappear by the confluence of the lirae; these whorls are covered by radiating unequal threads, running in a diagonal direction, opposite to the lines of growth; the lower swollen part of the whorls has compressed folds or tubercles, about 19 on the last whorl; moreover impressed lines, in the direction of the lines of growth, but rather remote and much more conspicuous, are visible with a lens on the last 5 whorls. Base with 12 lirae, much narrower than their interstices and with a tendency to be beaded, especially the distal ones, the interstices conspicuously radiately striated. Aperture subtrigonal, outer lip thin, curved, interior with about 11 lirae at some distance from the margin; basal margin slightly curved, bidentate, parietal wall slightly callous, with 2 strong and a few indistinct lirae; columella thick, oblique, with a fivedentate margin and an angle at the union with the basal lip; umbilical tract heavy, narrow, funnel-shaped, deep, lirate, white with a pearly lustre, like the interior of the aperture.

Alt. 29, diam. maj. 25 mm.; apert. alt. 6, lat. 11 mm.

Hab. Indian Ocean, without exact locality (Boie).

I cannot identify this shell, which belongs to the collection of the Leyden Museum, with any described species; in general outline it resembles the variety *verrucosus* Gmel. of *T. maculatus* Lin., but it is quite different from any known form of this species by its peculiar sculpture; the umbilical tract is much smaller and relatively deeper, etc.

2. The adult state of *Bathybembix aeola* Watson.

In Part XLII of the Zoology of the Voyage of H. M. S. Challenger, Watson has described on page 95 and figured on Plate VII, fig. 13, a shell, under the name of *Bembix aeola*, previously described by the same author in the »Preliminary Report" (Journ. Linn. Soc. Lond. Vol. XIV, p. 603). Now H. Crosse (Journal de Conchyliologie, 1892, p. 288) has shown in a paper: »sur le genre *Bathybembix*", that the name *Bembix* has been used by de Koninck for a fossil shell, and changes therefore the name in *Bathybembix*. Mr. Crosse suggests that Watson's specimen is not adult, and that it should belong in one genus with *Trochus* *argenteo-nitens* Lischke and perhaps also with *T. Alwinae* Lischke. Watson (l. c.) has also stated its affinity to *argenteo-nitens*. According to this last author a second specimen has been observed by Dr. Hoek, which was larger, with the basal threads more numerous and a covered umbilicus, leaving a mere chink.

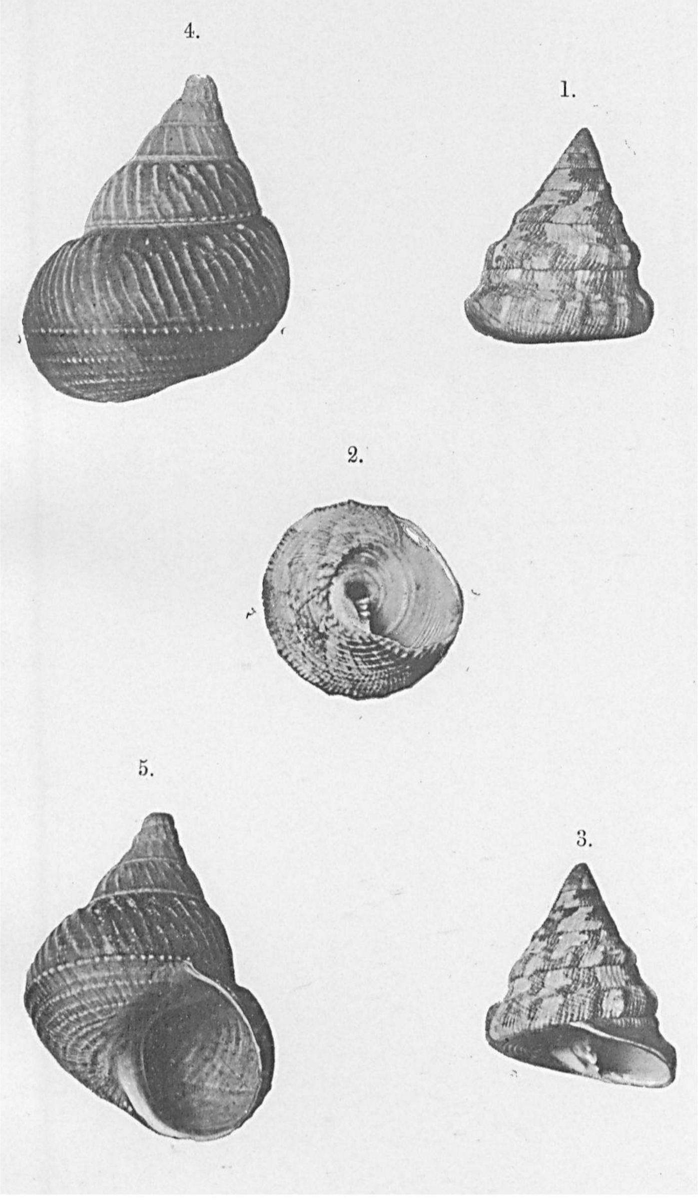
Afterwards Pilsbry has described (The Nautilus, Vol. VI, 1893, p. 105) a new species named *Calliostoma Crumpii*, referred on page 133 to the genus *Bathybembix* and figured on Plate II, fig. 3, of the same volume, and E. A. Smith described *Bathybembix Wood-Masoni* (Ann. and Mag. Nat. Hist. Vol. XVI, 1895, p. 7, fig.).

Amongst the Trochidae of the collection of the Leyden Museum, I found a shell collected by von Siebold in Japan, clearly belonging to the genus *Bathybembix*, but apparently not agreeing with any of the described species; however the sculpture of *B. aeola* proved to be identical with that of the upper whorls of the shell under consideration, so that I am convinced that this latter is the adult state of *B. aeola*. As the character of the adult shell is rather different from the young one, I thought it useful to describe and figure it. Unfortunately the embryonic whorls are wanting in my specimen, but 2 whorls with the 3 spirals, crossed by longitudinal lirae are present; of these lirae the median one first disappears and afterwards the inferior, while the infra-sutural one persists till near the aperture; the puckerings or folds, which are remote on the upper whorls, become more crowded on the penultimate and very numerous on the last whorl; this last whorl is much more inflated than the previous ones, the folds run partly from the infra-sutural tubercles and are either simple or bifurcate or intermediate; the keel is regularly beaded and the basal half is adorned by 9 or 10 beaded spirals, with rather broad interstices, which are radiately ribbed, the ribs uniting the beads of the spirals; the last whorl has a rather thick yellowish epidermis, with the fine puckerings described by Watson. The umbilicus is quite closed. The aperture is rounded, angular above at the insertion of the outer margin and slightly canaliculate by the submarginal depression of the last whorl. The outer margin is slightly thickened and nearly imperceptibly expanded; the columella is broad and flattened, covers the umbilicus and runs without distinct angle in the rounded basal margin. Parietal wall covered by a very thin layer of enamel, pearly on the left side.

Alt. 41, diam. maj. 34 mm.; apert. alt. 20, lat. 17 mm.

Hab. Japan (v. Siebold).

Rhoon, July 1904.



1, 2, 3. Trochus filiferus SCHEPM. 4 & 5. Bathybembix aeola WATS.